

**Testimony
of the
American Hospital Association
before the
Emergency Preparedness, Science and Technology Subcommittee
and the
Committee on Homeland Security
of the
U.S. House of Representatives**

**"The State of Interoperable Communications: Perspectives from the Field"
February 15, 2006**

Good morning, Mr. Chairman. I am William W. Pinsky, M.D., executive vice president and chief academic officer of Ochsner Clinic Foundation (OCF), in New Orleans, La. On behalf of the American Hospital Association's 4,800 hospitals, health systems and other health care organization members, and our 33,000 individual members, I appreciate the opportunity to speak to you and your colleagues about the importance of interoperable communications during a disaster.

For nearly 60 years, OCF has cared for residents in the greater New Orleans and Baton Rouge communities. Our main campus, including the 478 acute-care bed hospital and clinic, is located in Jefferson Parish, less than a mile from the Orleans Parish line and only a 15 minute drive to downtown New Orleans. In addition, we have 24 clinics throughout the New Orleans area and a sub-acute nursing facility/inpatient psychiatry/inpatient rehabilitation hospital two miles from our main campus. In Baton Rouge, we have three clinics, 70 physicians and 50 percent ownership of an acute care hospital. Recognized as a center for excellence in research, patient care and education, OCF is a not-for-profit, comprehensive, integrated health care system, and the largest non-governmental employer in Louisiana. With more than 7,400 employees – including more than 600 physicians in nearly 70 medical specialties – OCF is also one of the largest non-university-based physician-training centers in the country, annually hosting over 350 residents and fellows, 450 medical students and 400 allied health students.



When Hurricane Katrina hit the Gulf Coast, no one could have truly imagined the intense devastation it would leave in its wake. The wind and the rain wreaked havoc across Alabama, Mississippi and Louisiana. Knowing that the storm was headed their way, hospitals began sending home patients deemed well enough to be discharged. Those in critical condition or requiring special assistance, such as ventilator-assisted breathing, remained in the hospital. When hospital staff emergency teams arrived for work during the weekend before the storm hit, they expected it might be only a few days before they were able to return home. However, when the levees in New Orleans broke, the situation changed dramatically. We, and our colleagues in the New Orleans metropolitan area, faced a dire situation beyond our imagination.

Throughout the onslaught of Hurricane Katrina, and during its devastating aftermath, OCF remained open, caring for patients. This morning, I'd like to tell you how my hospital prepared for the storm; what our facilities did to ensure our communication systems worked and our doors remained open to provide critical health care services to our community; and answer any questions you and your colleagues might have about our experience.

Planning for Disaster

Hospitals routinely plan and train to deal with disaster, whether it's the derailment of a train carrying hazardous substances, a multiple-vehicle accident on a nearby interstate, a plane crash, or a natural disaster such as a hurricane or earthquake. As hospitals plan for disasters and the prospect of going without public services such as electricity and water, we prepare to be on our own for at least 72 hours, in the event it takes that long for assistance to arrive from the state or federal government. Our plan, which we revise after every disaster or "near-miss" event, had been revised most recently on June 1, 2005, less than three months before Hurricane Katrina struck.

On Friday, August 27, our entire executive leadership team had assembled in New Orleans for the first day of a two-day leadership retreat. Late in the afternoon, we were notified that the storm had turned to the West and likely would strike the area. We immediately initiated the first phase of our disaster plan, which included notifying essential personnel and securing previously stockpiled supplies.

Under the most recent disaster plan, two teams of essential personnel, Teams A and B, were created to ensure continuity of care and relief for employees on duty at the time disaster strikes. Each team was to include staff members from all departments, e.g. security, housekeeping, dietary, nursing, physicians, house staff, IT, media relations, research, etc. Team members had been identified and committed by June 1.

From previous experience, we realized the importance of not only adequately stocking essential supplies on-site, but also creating a back-up system to ensure additional supplies could be secured in times of an emergency. On Friday, we activated our supply chain and began to secure the additional supplies we had stockpiled off-site. Important supplies included: 400 flashlights; 100 head lamps; 2,000 batteries; 4,000 glow sticks, including 2,000 with lanyards; 600 SpectraLink wireless telephones with 1,800 batteries; 450 oscillating fans, one per patient; 250

box fans for work and sleeping areas; 20 55-gallon drums of water on each floor for commode flushing; 3000 gallons of water for drinking (we also have a deep water well on campus with a 10,000 gallon holding tank for additional water in an emergency); 60,000 gallons of diesel fuel; 10 pallets of sandbags; eight pallets of plastic bags; 100 blue tarps; 20 dehumidifiers; five pallets of plywood; and 50 additional shop vacuums. We also increased our food supply. At this time, we inspected our power sources. Our emergency generators are all located above our facility's second floor and our transformers were located on the ground level, behind 10-foot floodwalls.

On Saturday, August 28, executive leadership met with the vice presidents, directors, and managers and agreed to order Team A on-site by Sunday afternoon. Staff then began discharging the appropriate patients and moving those that would be unable to leave the facility. The families of the remaining patients were given "boarding rules" – one family member per patient would be allowed to stay. Similarly, staff was discouraged from bringing family members to work unless they absolutely could not make other arrangements. All patient and personnel families were pre-registered and given "special" parking passes to access our parking garage. During previous storms, we experienced problems with people in the community attempting to use our garage to protect their cars and boats. Under the revised plan, we stationed armed guards at the entrances to the garage to ensure that hospital staff, patients and their families could access the garage, and that all entrances were kept clear.

On Sunday, "sleeping" assignments were made. Due to concerns about the predicted high winds, patients were removed from the highest floors of the hospital. Patients were also moved into hallways and rooms without windows to protect them in the event of flying glass. Because OCF is a research facility, we house numerous research animals, which were evacuated to facilities in northern Louisiana. After evacuations were complete, we settled in to wait and see what Hurricane Katrina would bring.

Weathering the Storm

Ochsner's main campus survived the actual hurricane quite well. We sustained some roof and structural damage to our main facility, but overall the news was positive. Our generators functioned properly, the Internet was up and running, and our internal communications system was fully operable. Employees lost cellular phone and beeper capabilities due to damage to local cell towers; however, we had planned for such an event, and staff members were armed with SpectraLink wireless telephones. As a result, communication critical to patient care was uninterrupted. Our land-based telephones also remained in working order due to redundancy in our carrier network. Our medical record system is entirely electronic, and with power and the Internet operable, we did not have concerns about the availability of critical patient information. We had adequate supplies and believed we would be able to ride out the next few days.

However, as the situation in and around New Orleans rapidly deteriorated with the breach of the levees, conditions inside the hospital also took a turn for the worse. On the second day, one of our generators failed due to a mechanical problem, and we were forced to do without air conditioning. As a result, our Internet servers were shut down to prevent them from being damaged by the heat. Unfortunately, server shutdown meant the electronic medical record

system was inoperable. We attempted to send our helicopter out to secure the needed parts for the generator, but all non-governmental aircraft were temporarily grounded. We were, however, able to locate the necessary parts the next day to get the generator up and running again.

Conditions in our immediate area continued to worsen. Our main facility is located a few miles from the I-10/Causeway where large numbers of people attempting to make their way out of New Orleans after the storm congregated. Many of those gathered turned to the hospital for assistance on their way. However, we are a hospital, not a shelter. We tried to point people in the right direction to get the help they needed, and also dispatched medical personnel to the site to care for individuals in need, transferring those needing hospitalization back to our campus. Conditions in our neighborhood further destabilized as floodwaters began to rise; looting of nearby businesses began. At that point, we felt compelled to ask the National Guard to assist us in securing the safety of our patients and staff, and placed OCF on lockdown.

Operations inside the hospital similarly were beginning to show signs of strain. Although we had made extensive plans for securing and relieving essential personnel with the Team A and B designations, and had gone to great lengths to keep staff apprised of the situation – setting up a telephone tree as well a dedicated Web page with information – we had difficulty securing relief staff. Many had evacuated with their families to Baton Rouge and beyond. Fortunately, we were able to locate a good portion of staff members there and bring them in by bus convoy. As the floodwaters continued to rise, the same convoys were used to evacuate exhausted staff and their families, as well as patients who could be moved and their family members, to our facilities in Baton Rouge. These same convoys were our lifelines for supplies as well, enabling us to continue functioning.

At their height, the floodwaters rose as far as the doors on one side of the hospital, but we maintained the ability to leave and enter the building from other entrances and faced no real danger. Instead, we realized that rumor and speculation were a larger threat to the internal stabilization of the hospital than the floodwaters, and created an internal communication system to keep staff and patients informed of the conditions within the hospital and the city at large. The leadership team met twice daily to be updated and then fanned out across the facility, sharing the news they had just heard and answering questions. This open and honest communication policy went a long way toward assuaging staff and patient fears, and keeping the hospital in a calm state.

Toward the end of the crisis, we began to run low on food. However, we had an ample supply of water and were able to make do until relief shipments could be brought in. We also ran low on insulin, but because our telephones had been unaffected, we were able to secure 10,000 doses donated from sanofi-aventis pharmaceutical company.

Reaching Beyond Our Walls

With the situation in OCF's main facility well in-hand, our leadership team sought to inform local officials and offer assistance to other health care facilities hit harder by the storm. Since our land-based telephone system was operable, we believed this would be easy. However, we

had great difficulty trying to contact other hospitals and local agencies that were not as fortunate in the quality of their communications systems. We even found it difficult to locate the proper state and federal officials to offer our assistance.

According to our regional emergency plan, we report to the Jefferson Parish Office of Emergency Preparedness (OEP). However, the OEP system was overwhelmed and communication was impossible. When our attempts to reach the Jefferson OEP failed, we attempted to reach the Baton Rouge OEP. This was also challenging, as it appeared that the bandwidth of their system could not accommodate the high volume of incoming requests and was overloaded. We eventually successfully contacted the Orleans Parish OEP following the levee break, requesting both information, as well as assets. During this exchange, we became aware of their communications difficulties with the downtown hospitals that were in the midst of evacuating.

It was virtually impossible to coordinate air evacuation due to the various agencies involved – both military and civilian – and their lack of ability to communicate. We sent a vice president through the floodwaters downtown to the Orleans OEP with a hand radio to try and assist their coordination efforts, but were unsuccessful in reaching them. We instead found a widespread lack of coordination: police communication systems that were ineffective due to infrastructure damage and volume, and a National Guard system that was able to facilitate communications amongst guard units, but had difficulty communicating with local authorities. Of external communications, satellite systems were unreliable, and cell service, for a while, was virtually eliminated. Text messaging and Internet were the most reliable methods of communication.

Communication improved on day four when the United States Public Health Service (USPHS) arrived, and interagency daily meetings at OCF's main facility began. In addition to the USPHS, these meetings included "all" hospitals and representatives from the Jefferson and Orleans OEP health care divisions. The USPHS was able facilitate requests through the previously frustrating channels. They were particularly helpful with things like fuel and security; however, they did not have access to many of the assets we required. Prior to the USPHS's arrival, we were so frustrated in our inability to notify authorities that we were open and able to accept patients, that we used large trash bags to spell "OPEN" on our garage roof (see attachment A), hoping to attract the attention of the armada of helicopters flying overhead.

Assessing the Damage

Compared to our neighboring facilities, OCF weathered Hurricane Katrina well, and most aspects of our disaster plan worked as we had hoped. We sustained some structural damage on our main campus and lost three facilities. Our remaining facilities are stressed to their maximum. We currently are operating at 112 percent of inpatient capacity, and more than 50 percent of our staff has been displaced.

We are also revising all of our disaster policies in light of the events that transpired in Hurricane Katrina's wake. In particular, we are examining our family policy. Although we tried to limit the number of family members patients and staff could have at the hospital, we still found

ourselves with more relatives than was optimal. We did our best to accommodate as many people as we could, and even set up a temporary kennel in the parking garage for pets. However, this added a great deal of complexity to our operations and was not accounted for when calculating the amount of supplies needed.

We are paying close attention to our generators and transformers. In the future, we will be sure to stock replacement parts for the generators onsite, so repairs can be made in a timely manner. We are also contemplating relocating the transformers to higher ground, despite the presence of a floodwall.

Our data storage system has also drawn scrutiny. As noted, we have a fully electronic medical record system. At the time Hurricane Katrina struck, we backed up those records at a location away from our main campus – in downtown New Orleans. Though neither location was jeopardized, we have secured a new location to house back-up copies of our electronic records. I cannot emphasize enough how important our electronic records were. The system allowed us to instantaneously have the medical records available for our displaced patients who found their way to Baton Rouge.

We are very interested in ensuring that communication with the appropriate authorities and our colleagues across the area is maintained in the event of future emergencies. We weathered Hurricane Katrina and her aftermath as well as could be hoped for at our main facility. Because of the communication difficulties with the outside world, we knew we had to be self-sufficient, securing our own methods of sustaining our facilities. We were able to do this primarily because our facility in Baton Rouge could be used as an off-site command post, and our own communication systems remained operational. However, we could have done much more to assist the authorities and the local community if a fully interoperable communication system had been in place.

Conclusion

Mr. Chairman, the mission of every hospital in every community in America is to provide the best care possible to people in need. At no time is that more important than during a crisis, whether it be natural or man-made.

Hospitals across the country are doing their best to prepare for disasters that could strike at any moment. Many have become completely self-sustaining, capable of withstanding the most unimaginable crisis. But we cannot provide and help coordinate the care the community needs if we are islands unto ourselves. Communication with local, state and federal authorities is crucial for ensuring that hospitals can fulfill their mission to serve the health of the community during future disasters.

We look forward to working with this committee and staff to forge ahead toward a shared goal of improving the disaster preparedness of America's hospitals and communities.